

CLAIM AMENDMENTS:

Please amend Claims 1-11 as follows:

1. (Currently Amended) A photoelectric converting apparatus comprising:

a sensor unit including a plurality of pixels each having at least a photoelectric converter and a first ~~amplifier~~ amplification transistor for amplifying a signal derived from said photoelectric converter to output the amplified signal; and

a memory unit including a plurality of memories each having at least a storage element for storing therein the signal derived from said sensor unit and a second ~~amplifier~~ amplification transistor for amplifying a signal derived from said storage element to output an amplified signal

wherein, each of said first and second amplification transistors has a DC gain and an AC gain, wherein at least one of said DC gain and said AC gain differs between said first and second amplification transistors, and wherein said sensor unit and said memory unit output respective signals with a same gain.

2. (Currently Amended) A photoelectric converting apparatus according to Claim 1, wherein said first and said second ~~amplifiers~~ amplification transistors are constituted by MOS transistors.

3. (Currently Amended) A photoelectric converting apparatus according to Claim 2, wherein said first and said second ~~amplifiers~~ amplification transistors are ~~constituted by both amplifying MOS transistors and~~ connected to respective load MOS transistors.

4. (Currently Amended) A photoelectric converting apparatus according to Claim 3, wherein a conductance of the load MOS transistor ~~included in~~ connected to said first ~~amplifier~~ amplification transistor is ~~made~~ different from a conductance of the load MOS transistor ~~included in~~ connected to said second ~~amplifier~~ amplification transistor.

5. (Currently Amended) A photoelectric converting apparatus according to Claim 4, wherein ~~a gate length of the load MOS transistor included in said first amplifier is made different from a gate length of the load MOS transistor included in said second amplifier~~ respective gate lengths of said load MOS transistors differ.

6. (Currently Amended) A photoelectric converting apparatus according to Claim 4, wherein respective gate widths of said load MOS transistors differ.

7. (Currently Amended) A photoelectric converting apparatus according to Claim 4, wherein ~~a gate oxide layer thickness of the load MOS transistor~~

~~included in said first amplifier is made different from a gate oxide layer thickness of the load MOS transistor included in said second amplifier~~ respective gate oxide layer thicknesses of said load MOS transistors differ.

8. (Currently Amended) A photoelectric converting apparatus according to Claim 3, wherein ~~a conductance of the amplifying MOS transistor included in said first amplifier is made different from a conductance of the amplifying MOS transistor included in said second amplifier~~ respective conductances of said first and second amplification transistors differ.

9. (Currently Amended) A photoelectric converting apparatus according to Claim 8, wherein ~~a gate length of the amplifying MOS transistor included in said first amplifier is made different from a gate length of the amplifying MOS transistor included in said second amplifier~~ respective gate lengths of said first and second amplification transistors differ.

10. (Currently Amended). A photoelectric converting apparatus according to Claim 8, wherein ~~a gate width of the amplifying MOS transistor included in said first amplifier is made different from a gate width of the amplifying MOS transistor included in said second amplifier~~ respective gate widths of said first and second amplification transistors differ.

11. (Currently Amended) A photoelectric converting apparatus according to Claim 8, wherein ~~a gate oxide layer thickness of the amplifying MOS transistor included in said first amplifier is made different from a gate oxide layer thickness of the amplifying MOS transistor included in said second amplifier~~ respective gate oxide layer thicknesses of said first and second amplification transistors differ.

12. (Previously Presented) A photoelectric converting apparatus according to Claim 1, further comprising a transferring system for amplifying the signal derived from said sensor unit and/or said memory unit to transfer the amplified signal to said sensor unit and/or said memory unit.